

**CALIFORNIA ENERGY COMMISSION**

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SACRAMENTO, CA 95814-5512  
www.energy.ca.gov

**NOTICE OF PROPOSED AWARD (NOPA)****Advancing Clean Energy from Biogas, Biomethane, and Natural Gas****PON-14-505****March 25, 2015**

On December 10, 2014, the California Energy Commission (Energy Commission) released a competitive solicitation to fund research, development and demonstration (RD&D) projects that address the barriers to increased market penetration of renewable energy, particularly biogas and biomethane (also known as renewable natural gas), and natural gas fueled distributed generation, and combined heat and power systems. Up to \$5,500,000 in Natural Gas Research Program funding is available to fund applications in:

- Group A: Development and Demonstration of Affordable Technologies and Strategies for Biogas Cleanup and Upgrading to Biomethane or Renewable Natural Gas for Clean Power Generation.
- Group B: Demonstration of Bottoming Cycle Solutions as Supplemental Power Generation for Highly Efficient Use of Natural Gas.
- Group C: Development and Demonstration of Micro-Scale and Other Novel Systems for Small-Scale Combined Cooling, Heating and Power Applications.

The Energy Commission received 14 proposals by the due date of February 6, 2015. Each proposal was screened, reviewed, evaluated and scored using the criteria in the solicitation. 13 proposals passed the Stage One Application Screening.

The attached "Notice of Proposed Awards" identifies each applicant selected and recommended for funding by Energy Commission staff and includes the recommended funding amount and score. The total amount recommended is \$5,500,000.

Funding of proposed projects resulting from this solicitation is contingent upon the approval of these projects at a publicly noticed Energy Commission Business Meeting and execution of a grant agreement. If the Energy Commission is unable to timely negotiate and execute a funding agreement with an Applicant, the Energy Commission, at its sole discretion, reserves the right to cancel or otherwise modify the pending award, and award the funds to another applicant.

In addition, the Energy Commission reserves the right to: 1) add, remove, or shift funding between the different groups if there are insufficient passing proposals in one group and 2) negotiate with successful applicants to modify the project scope, schedule, and/or level of funding.

This notice is being mailed to all parties who submitted an application to this solicitation and is also posted on the Energy Commission's website at: [www.energy.ca.gov/contracts/](http://www.energy.ca.gov/contracts/).

For information, please contact Doug Harvey at (916) 645-4747, or by e-mail at [douglas.harvey@energy.ca.gov](mailto:douglas.harvey@energy.ca.gov).

**Doug Harvey**  
Commission Agreement Officer



# California Energy Commission

PON-14-505

Advancing Clean Energy from Biogas, Biomethane, and Natural Gas

Project Group A - Development and Demonstration of Affordable Technologies and Strategies for Biogas

Cleanup and Upgrading to Biomethane or Renewable Natural Gas for Clean Power Generation

**Notice of Proposed Awards**

March 25, 2015

Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
<b>Proposed Awards</b>							
1	Institute of Gas Technology dba Gas Technology Institute (GTI)	Advancing Novel Biogas Cleanup Systems for the Production of Renewable Natural Gas	\$1,000,000	\$1,000,000	\$214,650	83.5	Awardee
2	The Regents of the University of California, San Diego	Wood Chips on the Natural Gas Pipeline - RNG Production from Biomass	\$1,000,000	\$1,000,000	\$237,000	83.3	Awardee
3	Mosaic Materials, Inc.	Cost Reduction for Biogas Upgrading via a Low-Pressure Solid-State Amine Scrubber	\$1,000,000	\$1,000,000	\$200,000	82.7	Awardee
4	Las Gallinas Valley Sanitary District	Las Gallinas Valley Biogas Energy Recovery System (BERS) Project	\$999,070	\$937,291	\$1,350,580	81.6	Awardee
<b>Total Funding Recommended</b>			<b>\$3,999,070</b>	<b>\$3,937,291</b>	<b>\$2,002,230</b>		
<b>Passed but Not Funded</b>							
5	Biogas Energy Inc.	Investigation and Implementation of Improvements to Biogas Production Using Micronutrients, Operational Methodologies, and Biogas Processing Equipment to Enable Pipeline Injection of Biomethane	\$415,000	\$0	\$112,100	79.9	Finalist
<b>Total</b>			<b>\$415,000</b>	<b>\$0</b>	<b>\$112,100</b>		



# California Energy Commission

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Advancing Clean Energy from Biogas, Biomethane, and Natural Gas

Project Group A - Development and Demonstration of Affordable Technologies and Strategies for Biogas

Cleanup and Upgrading to Biomethane or Renewable Natural Gas for Clean Power Generation

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March 25, 2015

<b>Did Not Pass</b>							
	Environmental Management Group International, Inc.	Compact High Rate Digester System for Manure Treatment and Biogas Generation at Small Dairy Farms in California	\$838,700	\$0	\$210,400		Did Not Pass
	The Regents of the University of California, Riverside	Efficient Biogas Utilization through Bi-reforming	\$842,486	\$0	\$169,970		Did Not Pass
	Burst Laboratories, Inc.	Biogas Productivity Enhancement by Cavitation Pretreatment	\$739,710	\$0	\$150,000		Did Not Pass
	Waste To Energy, LLC	San Bonito County Landfill/Resources Recovery Park Gas Recovery Project	\$1,000,000	\$0	\$58,088,808		Did Not Pass
<b>Total</b>			<b>\$3,420,896</b>	<b>\$0</b>	<b>\$58,619,178</b>		
<b>Disqualified</b>							
	Carson US Inc.	Renewable Energy from Waste	\$1,000,000	\$0	\$500,000		Disqualified
<b>Total</b>			<b>\$1,000,000</b>	<b>\$0</b>	<b>\$500,000</b>		
<b>Grand Total</b>			<b>\$8,834,966</b>	<b>\$3,937,291</b>	<b>\$61,233,508</b>		



# California Energy Commission

PON-14-505

Advancing Clean Energy from Biogas, Biomethane, and Natural Gas

Project Group B - Demonstration of Bottoming Cycle Solutions as Supplemental

Power Generation for Highly Efficient Use of Natural Gas

## Notice of Proposed Awards

March 25, 2015

Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
<b>Proposed Awards</b>							
1	Electric Power Research Institute (EPRI)	Development and Demonstration of Cost Effective, Packaged Approach to Industrial Gas Efficiency Using Organic Rankine Cycle Technology	\$999,889	\$999,889	\$269,000	80.6	Awardee
<b>Total Funding Recommended</b>			<b>\$999,889</b>	<b>\$999,889</b>	<b>\$269,000</b>		
<b>Grand Total</b>			<b>\$999,889</b>	<b>\$999,889</b>	<b>\$269,000</b>		



**California Energy Commission**  
**PON-14-505**  
**Advancing Clean Energy from Biogas, Biomethane, and Natural Gas**  
**Project Group C - Development and Demonstration of Micro-Scale and Other Novel**  
**Systems for Small-Scale Combined Cooling, Heating and Power Applications**  
**Notice of Proposed Awards**  
**March 25, 2015**

Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
<b>Proposed Awards</b>							
1	Institute of Gas Technology dba Gas Technology Institute (GTI)	Showcase Field Demonstrations of a 25 kW <sub>e</sub> Low-Emission Reciprocating Engine CHP System at the SoCal Gas Energy Resource Center	\$562,820	\$562,820	\$175,000	77.1	Awardee
<b>Total Funding Recommended</b>			<b>\$562,820</b>	<b>\$562,820</b>	<b>\$175,000</b>		
<b>Did Not Pass</b>							
	The Regents of the University of California, Irvine	Development and Demonstration of a Self Contained, Low Cost, Fuel Flexible Rotary Engine DG/CHP Appliance	\$749,990	\$0	\$160,000		Did Not Pass
	NanoConversion Technologies, Inc.	Micro CHP Appliance Development using Multiple C-TEC Units and Metal Foam Matrix Burner	\$750,000	\$0	\$150,000		Did Not Pass
<b>Total</b>			<b>\$1,499,990</b>	<b>\$0</b>	<b>\$310,000</b>		
<b>Grand Total</b>			<b>\$2,062,810</b>	<b>\$562,820</b>	<b>\$485,000</b>		